

BEWARE! END OF THE WORLD ONLY 12,000,000 YEARS AWAY!

By G. FREDERICK WRIGHT, A. M., LL. D.

Then the Sun Will Shrink, Lose Its Heat and Inhabitants of the Earth Will Freeze and Starve to Death.

High Browed Scientists Have It All Worked Out—"Things Are in a Bad Way." Warns Adherent of Nebular Hypothesis—World's Center Giving Forth Warmth May Save Us for a Time, But Ultimate Destruction Is Inevitable, Wise Ones Say.

REASONING from the principles of the pretty generally accepted nebular hypothesis the end of the world is to be reached very gradually through the increasing reign of cold and the lengthening of the earth's day. For it is evident that the sun cannot keep on radiating heat at

the sun will have become so far cooled off that we shall be indifferent to everything else that happens.

Another limit to the future of the habitable portion of the earth is brought to light by the rapid progress of erosion that is going on all over the land surface of the world. Wallace estimates that one foot of

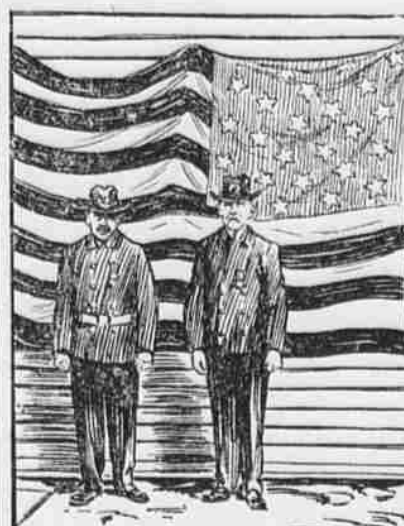


MADE FLAG IN LIBBY PRISON.

Red and Blue Portions Cut from Shirts of Prisoners.

One of the most valued civil war relics in Greater Boston is the old Libby prison flag now in possession of Thomas G. Stevenson post G. A. R., 222 street, Roxbury. It was made in secret by federal soldiers. The story of its making, which was fraught with danger and many obstacles, is a lesson in patriotism.

As the Fourth of July drew near the prisoners wished to find some way of celebrating the day without attracting the attention of their confederate



The Flag, with L. A. Fillebrown and F. F. Follansbee Before It.

guards. The plan of making the ensign occurred to Timothy J. Regan, Ninth Massachusetts, company E. He confided the plan to his comrades, who entered eagerly into the scheme and united their efforts cautiously for its accomplishment.

Some white cloth was smuggled into the prison and for the other colors the men supplied parts of their red and blue flannel shirts, says the Boston Herald. The various pieces were skillfully sewn together.

This flag, placed against the roof of the prison, which was extremely high, was out of sight of the confederate guards. So it was under the folds of a genuine stars and stripes that the union comrades gathered on that Independence day, and sang their songs of patriotism.

At night the ensign was secretly dismembered as it had been secretly put together, the parts were distributed to those who had contributed them, and the address of every man who had a portion was written down by Timothy Regan.

After the release from Libby prison Regan began communicating with the men for the purpose of reassembling the flag. Progress was very slow, and often discouraging, and it was not until 30 years had passed that he finally succeeded in collecting every piece, when the flag was remade.

Another long period passed before the story was made public. Timothy Regan died 20 years ago. On his death bed he called to his side David L. Jones, who was then commander of post 26, and said:

"In that drawer over there you will find a key. Take it, open the door of the closet in the corner of the room, unlock a trunk and bring me what is in it."

The flag was brought to him; and then he told the story of how it came to be made.

He concluded: "The old flag was made under great hardships, and in the midst of privation and suffering. In committing that act we infringed upon a cardinal rule of the prison; and had it been discovered every man of us would have been severely punished. But it was worth all the risk to see it there above us while we were singing our songs. It was the only way in which we prisoners could celebrate the birthday of the blessed country for which we were fighting."

"All the comrades separated widely, after our release, and I was in great fear that I could never be able to collect all the pieces; but I have done it at last, and every blessed piece is there."

The flag is on exhibition at post 26. It is not, as some might suppose, a crude affair. Only by close inspection can it be seen that parts of the material differ in texture from the bunting of the regulation flag.

Standing before the flag, as shown in the picture, are L. A. Fillebrown and Chaplain F. F. Follansbee of post 26.

Honor the Flag.

Playing the "Star-Spangled Banner" on shipboard is a ceremony which must be attended with proper respect. One of the correspondents with the cruising fleet writes that on one rainy evening, when his ship was just below the equator, the band gave the usual concert between decks. It was so hot that the members of the band took off their coats, and the members of the crew took off everything but their undershirts and trousers. When the time came to play the national air the leader paused, the band stood, and the members of the crew came to attention; but no signal to play was given until every man had put on his coat and hat, that patriotism might never lose its self-respect by being taught in dishabille.

A TERRIBLE CONDITION.

Tortured by Sharp Twinges, Shooting Pains and Dizziness.

Hiram Center, 518 South Oak street, Lake City, Minn., says: "I was so bad with kidney trouble that I could not straighten up after stooping without sharp pains shooting through my back. I had dizzy spells, was nervous and my eyesight affected. The kidney secretions were irregular and too frequent. I was in a terrible condition, but Doan's Kidney Pills have cured me and I have enjoyed perfect health since."

Sold by all dealers. 50 cents a box. Foster-Milburn Co., Buffalo, N. Y.

THE EFFECT OF WEALTH.



Billie—Who is that awfully freckled girl on the horse?

Tillie—Why, that's Miss Gofrox. She has several millions in her own name.

Billie—So? My! Aren't her freckles becoming?

We cannot conquer fate and necessity, yet we can yield to them in such a manner as to be greater than if we could.—Landor.

Your Druggist Will Tell You

That Murine Eye Remedy Cures Eyes, Makes Weak Eyes Strong, Doesn't Smart, Soothes Eye Pain and Sells for 50c.

We tarnish the splendor of our best actions by too often speaking of them.

FITS, St. Vitus Dance and Nervous Diseases permanently cured by Dr. Kline's Great Nerve Restorer, sent for FREE \$5.00 trial bottle and treatise. Dr. R. H. Kline, Ltd., 361 Arch Street, Philadelphia, Pa.

Girls are partial to automobiles because they have sparkers.

Mrs. Winslow's Soothing Syrup. For children teething, softens the gums, reduces inflammation, allays pain, cures wind colic. See a bottle.

When money begins to talk people sit up and take notice.

Allen's Foot-Ease, a Powder. For swollen, sweating feet, gives instant relief. The original powder for the feet. See at all Druggists.

The right kind of a doctor leaves well enough alone.

A SURGICAL OPERATION



If there is any one thing that a woman dreads more than another it is a surgical operation.

We can state without fear of a contradiction that there are hundreds, yes, thousands, of operations performed upon women in our hospitals which are entirely unnecessary and many have been avoided by

LYDIA E. PINKHAM'S VEGETABLE COMPOUND

For proof of this statement read the following letters.

Mrs. Barbara Base, of Kingman, Kansas, writes to Mrs. Pinkham:

"For eight years I suffered from the most severe form of female troubles and was told that an operation was my only hope of recovery. I wrote Mrs. Pinkham for advice, and took Lydia E. Pinkham's Vegetable Compound, and it has saved my life and made me a well woman."

Mrs. Arthur R. House, of Church Road, Moorestown, N. J., writes:

"I feel it is my duty to let people know what Lydia E. Pinkham's Vegetable Compound has done for me. I suffered from female troubles, and last March my physician decided that an operation was necessary. My husband objected, and urged me to try Lydia E. Pinkham's Vegetable Compound, and to-day I am well and strong."

FACTS FOR SICK WOMEN.

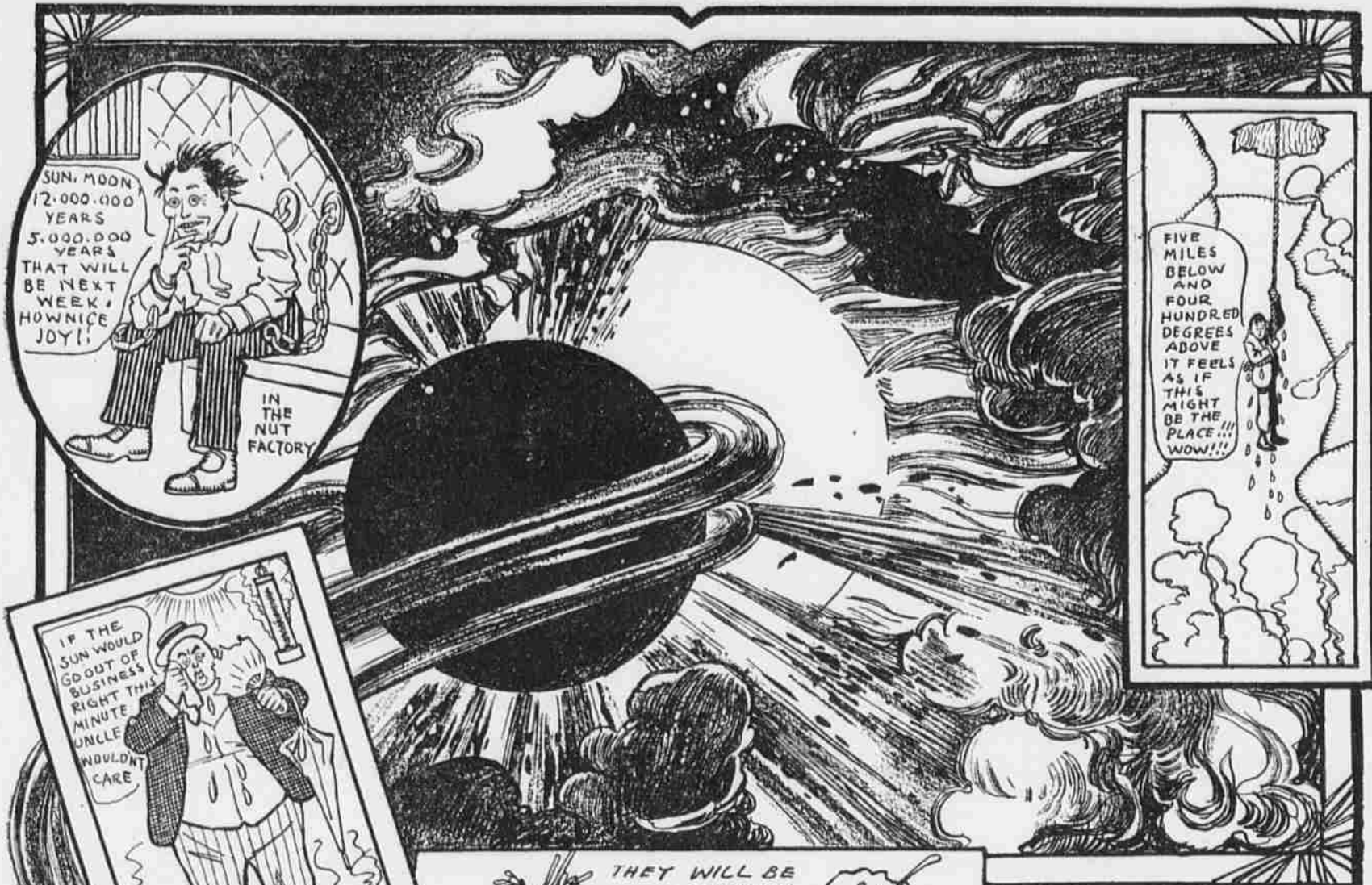
For thirty years Lydia E. Pinkham's Vegetable Compound, made from roots and herbs, has been the standard remedy for female ills, and has positively cured thousands of women who have been troubled with displacements, inflammation, ulceration, fibroid tumors, irregularities, periodic pains, and backache.

Mrs. Pinkham invites all sick women to write her for advice. She has guided thousands to health. Address, Lynn, Mass.

A GOLD MINE IN YOUR HEAD

Why Don't You Work It? If you are ingenious and have \$500 or only \$10, or if not ingenious but have money to invest and want steady income, write to-day for free particulars. American Active Artists Co., Terminal Building, 50 Church Street, New York.

WIDOWS' under NEW LAW obtained by JOHN W. MORRIS, Washington, D. C.



the present rate, or, indeed, at any rate, forever. As Lord Kelvin has well said, we know that the sun is cooling off just as certainly as we should know that a hot stone which we encountered in a field was cooling off, though we had not seen it long enough to measure the rate of its cooling. Heat is not a permanent quality of any known object. The sun must be losing its heat, and hence in time will become a cold and lifeless object.

If things continue to go on as they now do, astronomers tell us, the sun will lose its life-giving heat long before 12,000,000 years have elapsed. Like all other cooling bodies, the sun must be diminishing in size. Its diameter must be contracting. Newcomb estimates that in less than 5,000,000 years the sun's diameter will contract to one-half its present length, so that the sun will occupy only one-eighth of the space it now occupies. It is hardly possible for it after that to continue to furnish as much heat as it does now, but it must then cool off with great rapidity.

This reasoning is based on the supposition that the sun is not yet a solid body, but is so hot that its mass is still in a gaseous state. But the force of gravity upon the sun is so great that the gas is compressed into a much smaller proportionate compass than it is on the earth. The force of gravity on the surface of the sun is 27 times that on the earth, so that a man weighing 150 pounds on the earth would weigh nearly two tons on the sun. So great is this pressure of gravity on the gases of the sun that they are reduced to one-quarter the density of the solid nucleus of the earth. But so long as the nucleus of the sun continues to be gaseous it will continue to grow hotter as it diminishes in size. So soon, however, as it loses sufficient heat to allow the material to take on the solid form, a crust will be formed and the radiating heat will rapidly diminish. Probably, also, the heat radiated will diminish long before that time, even though the sun is growing hotter, because of the diminishing size of the globe.

The only way that the astronomers can see to avoid this slow paralysis of the sun, and so of the whole solar system, is that lately proposed by Prof. Langley in a sensational article depicting what would happen if a dark world moving at an incredible speed in space should come so near our sun that the two would collide. In this case the original heat of the sun might be restored, but the catastrophe would practically produce such an expansion of its volume and such an increase of its radiating power that everything on the earth would be burned up, producing about such phenomena as are described by the Apostle Peter. Indeed, the resemblance between the words of the apostle and the theory of the Washington astronomer was as striking as it was unexpected, so much so that some readers may not know from which source the following quotation is taken:



"The heavens shall pass away with a great noise, and the elements shall be dissolved with fervent heat, and the earth and the works therein shall be burned up."

But the suggestion of the astronomer was pure speculation. There are no apparent signs of any such approaching catastrophe as Dr. Langley suggests as possible. At any rate, we may settle down to the conclusion that so far as astronomical forces are concerned the present order of things will not be disturbed for three or four million years.

But an equally gloomy prospect is before the world in the distant future from another cause which is in slow operation. The length of the earth's day is slowly increasing through the retarding influence of the tides produced by the moon. To be sure, this effect is so slight that it has not been directly perceptible since accurate methods of measuring the time of the earth's revolution on its axis have been observed. But that it must be taking place is as sure as that friction will stop a railroad train when the steam is turned off.

The tides raised by the moon's attraction are distributed by the continents so as to present many anomalies, but when considered in themselves they act the same as a wave three feet high constantly running in an opposite direction to the revolution of the earth, and so by friction retarding its motion. Astronomers are agreed that similar tides produced on the moon have reduced her revolution on her axis to a period of 28 days. Eventually the revolution of the earth will be reduced so that our day will be several times longer than now. When that time comes the nights will be so cold that nothing can stand it, and if they could the days will be so hot that what was left by the cold would be destroyed by the heat. But that time, also, is so far in the future that the present generation may put it out of their minds. This catastrophe will not arrive for many million years yet. Indeed, before that time arrives the

earth's surface is, on the average, washed away by the streams every 3,000 years and deposited at the bottom of the ocean. This amounts to more than 300 feet in a million years. As the main elevation of North America is 748 feet, and that of Europe 671 feet, it follows that by the operation of present forces Europe will be washed into the sea in 2,000,000 years, and America in 3,000,000 years. What providence has in store for us after that, no man knows. If the sunken portion shall rise at the end of the coal period, as it did at the end of the coal period, there will be dry land to live on, but it is doubtful if it have such stores of iron and coal as have blessed the present race of human beings.

There are two other sources of heat to which we may look with much confidence and hope. It was more than a dream of Ericsson to invent an engine which could be run by collecting the direct rays of the sun through immense sun-dials, thus generating the heat necessary to set in motion the wheels of industry. But the successful carrying out of his plans would necessitate the transfer of our great manufacturing centers to the rainless regions of the world where sunshine prevails. It, therefore, will be impossible that the desert of Sahara and the sandy wastes of Central Asia shall in the future usurp the place now assumed by the localities in proximity to the great coal fields of the world, while the latter become overgrown with briars and brambles like the mounds of many an ancient center of civilization.

Still another possible source from which we may draw infinite quantities of heat and power is to be found in the heated center of the earth. As we descend below the surface of the earth, the temperature rises on an average of one degree in 60 feet. At a depth of two miles, therefore, the temperature of boiling water would be reached, and at a depth of five miles a temperature of more than 400 degrees. It would, therefore, not seem by any means impossible to bore into the earth deep enough to make a portion of its heat available for all ordinary purposes.

The world, however, is concerned with impending catastrophes nearer at hand. The prosperity of the present time is largely due to the rapidity with which we are using up the reserved stores of nature upon or near the surface of the earth.

Thus geology, while it opens up to mankind the stores of good that are buried for safekeeping in the depths of the earth, points to their limited quantity, and calls upon men to use them economically and leave as much as possible for future generations. Wastefulness of these limited stores is a sin. At the same time it gives the philosophical student of history a sobering view of the destiny of man. Nothing is more certain than that man has not been always on the earth, and that he is not always to stay here. The world is like a transcontinental railroad train and the human race like a passenger who gets on at one end and has to get off at the other. Out of mystery man came and into mystery he goes. The visible world is a passing show. All that is unchangeable lies in the world of the unseen.

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